



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/519,579

06/13/2005

Walter Trakowski

HM-612PCT

2489

40570 7590 03/04/2009  
FRIEDRICH KUEFFNER  
317 MADISON AVENUE, SUITE 910  
NEW YORK, NY 10017

EXAMINER

WALTERS JR, ROBERT S

ART UNIT

PAPER NUMBER

1792

MAIL DATE

DELIVERY MODE

03/04/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/519,579	<b>Applicant(s)</b> TRAKOWSKI ET AL.	
	<b>Examiner</b> ROBERT S. WALTERS JR	<b>Art Unit</b> 1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 November 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Status of Application***

Claims 2-5 are cancelled. Claim 1 is pending and presented for examination.

### ***Response to Arguments***

Applicant's arguments filed 11/25/2008 have been fully considered but they are not persuasive. The applicant has essentially added the limitation of cancelled claim 5 to independent claim 1, and has argued that the references previously applied to reject claim 1 do not teach or suggest using the gas mixture that is presently claimed. The examiner agrees that Masaaki in view of Pedley fail to teach the added limitation of the use of argon with admixtures of butane and/or propane (see the 1<sup>st</sup> sentence of Rejection 4 on page 7 of the previous Office Action). However, it was cancelled claim 5 that required the admixture of butane and/or propane, and this claim was rejected over Masaaki in view of Pedley and further in view of Sander. The Sander reference does teach the use of butane or propane (column 8, lines 29-38). Furthermore, the applicant has not presented an argument of how the presently presented claim overcomes this combination of references.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

Art Unit: 1792

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

1. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Masaaki (JP 11-279730) in view of Pedley (GB 2050432) and Sander et al. (U.S. Pat. No. 4228200).

Regarding claim 1, Masaaki teaches a method of suppressing the evaporation of zinc in hot dip coating of a steel strip with zinc, wherein the metal strip is guided through a furnace snout immersed in the metal bath and guided around a deflecting roller in the metal bath and then emerges from the metal bath at the top (abstract and Figure). Masaaki further teaches having a

Art Unit: 1792

gas present in the furnace snout above the metal bath that will serve as an isolating gas (abstract). Masaaki fails to explicitly teach using argon with admixtures of butane and/or propane as the isolating gas.

Pedley teaches the use of argon (pg 1, column 2, lines 86-92) as a gas to sit upon the surface of a molten metal bath which may be zinc to protect the surface of the molten metal that is to be used in the galvanizing of steel products (pg 1, column 2, lines 84-95). Sander teaches a method for controlling the metal coating of strips (abstract) in a metal bath, which may be a zinc bath (column 6, lines 24-27). Sander teaches the use of an atmosphere adjacent to the surface of the metal bath introduced across the width of the bath which is non-oxidizing and unreactive with the molten metal, which may be butane or propane (column 8, lines 29-38). Sander teaches that this metal bath serves to maintain the bath surface in a substantially clean condition (column 8, lines 52-56).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Masaaki's method by utilizing argon with admixtures of propane and/or butane as an isolating gas, as is disclosed by Pedley and Sander. One would have been motivated to make this modification as one of ordinary skill in the art could have substituted argon, as taught by Pedley, admixed with butane or propane, as taught by Sander, in place of the isolating gases disclosed by Masaaki with a reasonable expectation of success (note that both Pedley and Sandler teach the use of their gases over surfaces of molten zinc baths) and the predictable result of providing an isolating gas to suppress evaporation of zinc above the metal bath. Furthermore, one would have been motivated to make this modification as both Pedley and Sander teach that these gases will also provide a non-oxidizing environment above the zinc (see

Art Unit: 1792

Pedley at abstract and Sander at column 8, lines 36-37 and 52-56), therefore helping to alleviate zinc oxidation and deterioration of the zinc melt in the tank.

***Conclusion***

Claim 1 is pending.

Claim 1 is rejected.

No claim is allowed.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT S. WALTERS JR whose telephone number is (571)270-5351. The examiner can normally be reached on Monday-Thursday, 6:30am to 5:00pm EST.

Art Unit: 1792

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on (571)272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ROBERT S. WALTERS JR/  
February 28, 2009  
Examiner, Art Unit 1792

/Michael Barr/  
Supervisory Patent Examiner, Art Unit  
1792

\*\*\*